

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

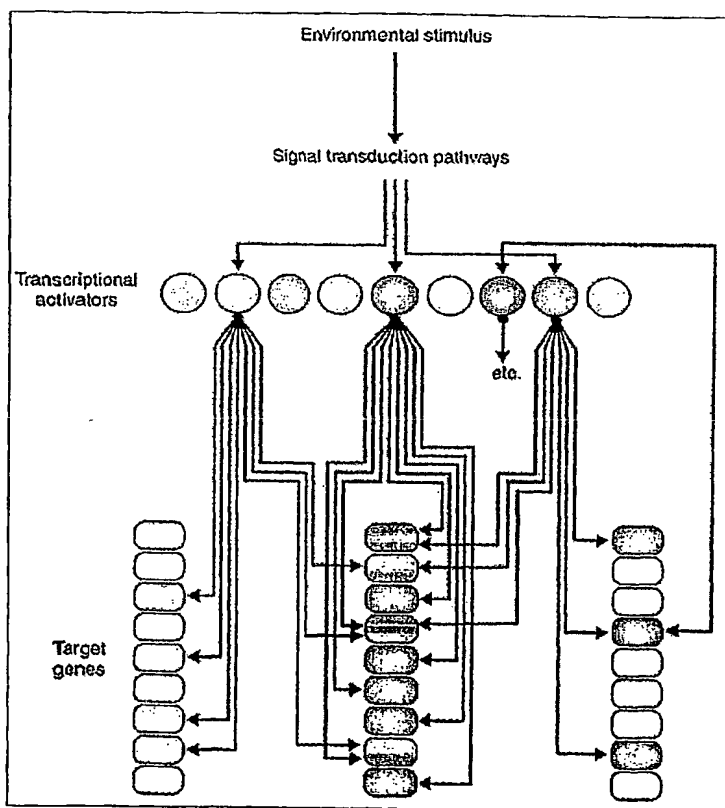
PCT

(10) International Publication Number
WO 2004/046387 A1

- (51) International Patent Classification⁷: C12Q 1/68, C12P 19/36, C12M 1/36
- (21) International Application Number: PCT/US2003/037044
- (22) International Filing Date: 17 November 2003 (17.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/426,934 15 November 2002 (15.11.2002) US
- (71) Applicant (for all designated States except US): SANG-AMO BIOSCIENCES, INC. [US/US]; Point Richmond Tech Center, 501 Canal Blvd., Suite A100, Richmond, CA 94804 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): URNOV, Fyodor [US/US]; 135 Lakeshore Court, Richmond, CA 94804 (US). RHODES, Eric [US/US]; 612 Bonita Avenue, Pleasanton, CA 94566 (US).
- (74) Agents: PASTERNAK, Dahna et al.; Robins & Pasternak LLP, 1731 Embarcadero Road, Suite 230, Palo Alto, CA 94303 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: METHODS AND COMPOSITIONS FOR ANALYSIS OF REGULATORY SEQUENCES



(57) Abstract: Methods for constructing arrays of regulatory sequences, and the arrays so obtained, are provided. Regulatory sequences for use on the arrays are isolated based on their accessibility in cellular chromatin. A number of methods for using the arrays are disclosed, including regulatory DNA profiling, epigenome profiling, toxicological profiling and identification of in vivo binding sites of DNA binding proteins in complex genomes.

WO 2004/046387 A1